

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave.St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 70.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003107**Date Inspected:** 21-Jun-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1700**Contractor:** Japan Steel Works**Location:** Muroran, Japan**CWI Name:** Chung-Fu Kuan**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower,Jacking and Deviation Saddle**Summary of Items Observed:**

The following report is based on METS observations at Japan Steel Works (JSW) in Muroran Japan. Current work: Casting, machining and repair of Saddles.

**Fabrication Shop # 4**

On this date the QA representative Dong J, Shin arrived at Japan Steel Works (JSW) of Muroran Japan and traveled to JSW fabrication shop # 4. The QA Inspector observed Mr. M. Kubota, (A Shift), Mr. T. Kawakami, (A Shift) welding on W2-E1 fill pass ( 30%-60%) of Rib to stem and base plate welds. The welding of the Rib to stem and base plate first side welding was performed utilizing the Gas Shielded Flux Core Arc Welding (FCAW) process with dual shield as per the welding procedure specification (WPS) SJ-3011-2 & 3. The welding was performed in the 1G (Flat) position. The filler metal utilized was identified as 1.6 mm diameter, Class TM 95K2, Brand name Tri Mark. The welding parameters and heat control were monitored by Intertek Testing Services Quality Control (QC) inspector Mr. Chung-Fu Kuan at periodic intervals. The minimum preheat temperature of 160 degrees Celsius and maximum inter pass temperature of 218 degrees Celsius was verified to meet the WPS requirements by Mr. Kuan and the QA inspector utilizing Tempilstick temperature indicators. This data was entered into the QC inspector's daily log, identifying the location on a weld map. The FCAW welding average amperage and voltage by clamp type meter and travel speed were verified to be within the welding procedure specification parameter range of 311 amps to 355 amps, 34 volts to 37 volts and travel speed of 254 to 310 mm per minute for the 1.6mm wire. The welding was continued to night shift. Visually, general welding appears to meet the minimum requirements of the welding procedure specification and contract documents.

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## WELDING INSPECTION REPORT

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### Summary of Conversations:

No specific conversations.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Venkatesh Iyer, (858) 967-6363, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Shin,DJ	Quality Assurance Inspector
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<b>Reviewed By:</b>	Lanz,Joe	QA Reviewer
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